MediGene Aktiengesellschaft

M25519PC BÖ

Claims

1. Nucleic acid coding for a polypeptide having an amino acid sequence as shown in Fig. 4 or a functional variant thereof, and parts thereof having at least 8 nucleotides, except a nucleic acid having the sequence:

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1   GCCAACACGC ANTCCGACGA CAGTGCAGCC ATGGTCATTG CAGAGATGCN TCAAAGTCAA
61  TGAGCACATC ACCAACGTAA ACGTCGAGTC CAACTTCATA ACGGGAAAGG GGATCCTGGC
121 CATCATGAGA GCTCTCCAGC ACAACACGGT GCTCACGGAG CTGCGTTTCC ATAACCAGAG
181 GCACATCATG GGCAGCCAGG TGGAAATGGA GATTGTCAAG CTNCTGAAGG AGAACAACAC
241 GCTNCTGAGG CTGGGNTACC ATTTTNAACT CCCAGGACC
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2. Nucleic acid according to Claim 1, characterized in that the nucleic acid is a DNA or RNA, preferably a DNA, in particular a double-stranded DNA.

3. Nucleic acid according to Claim 1 or 2, characterized in that the nucleic acid contains a DNA having a nucleic acid sequence as shown in Fig. 1, 2 or 3.

4. Nucleic acid according to any of Claims 1-3, characterized in that the nucleic acid is present in a vector, preferably in an expression vector or vector effective for gene therapy.

5. Nucleic acid according to any of Claims 1-4, characterized in that the part of the nucleic acid which codes for the polypeptide contains one or more noncoding sequences and/or a polyA sequence.

6. Process for the preparation of a nucleic acid according to any of Claims 1-5, characterized in that the nucleic acid is chemically synthesized or isolated from a gene bank using a probe.

7. Polypeptide having an amino acid sequence as shown in Fig. 4 or a functional variant thereof, and

parts thereof having at least 6 amino acids, except a polypeptide having the sequence:

PTRNPTTVQPWSLQRCIKVNEHITNVNVESNFITGKGILAIMRALQ

10 20 30 40

HNTVLTELRFHNQRHIMGSQVEMEIVKLLKENTTLLRLGYHFKLPG

50 60 70 80 90

8. Process for the preparation of a polypeptide according to Claim 7, characterized in that a nucleic acid according to any of Claims 1-3 is expressed in a suitable host cell.

9. Antibody against a polypeptide having an amino acid sequence as shown in Fig. 4 or a functional variant thereof, and parts thereof having at least 6 amino acids.

10. Process for the preparation of an antibody according to Claim 9, characterized in that a mammal is immunized with a polypeptide having an amino acid sequence as shown in Fig. 4 or a functional variant thereof, and parts thereof having at least 6 amino acids, and the resulting antibodies are isolated.

11. Medicinal product containing a nucleic acid coding for a polypeptide having an amino acid sequence as shown in Fig. 4 or a functional variant thereof, and parts thereof having at least 8 nucleotides, or a polypeptide having an amino acid sequence as shown in Fig. 4 or a functional variant thereof, and parts thereof having at least 6 amino acids, and, where appropriate, a pharmaceutically acceptable carrier.

12. Process for the preparation of a medicinal product for treating cardiac disorders, characterized in that a nucleic acid coding for a polypeptide having an amino acid sequence as shown in Fig. 4 or a functional variant thereof, and parts thereof having at least 8 nucleotides, or a polypeptide having an amino acid sequence as shown in Fig. 4 or a functional

variant thereof, and parts thereof having at least 6 amino acids, is formulated with a pharmaceutically acceptable carrier.

13. Diagnostic aid containing a nucleic acid coding for a polypeptide having an amino acid sequence as shown in Fig. 4 or a functional variant thereof, and parts thereof having at least 8 nucleotides, a polypeptide having an amino acid sequence as shown in Fig. 4 or a functional variant thereof, and parts thereof having at least 6 amino acids, or an antibody according to Claim 9 and, where appropriate, suitable additives or excipients.

14. Process for the preparation of a diagnostic aid for diagnosing cardiac disorders, characterized in that a nucleic acid coding for a polypeptide having an amino acid sequence as shown in Fig. 4 or a functional variant thereof, and parts thereof having at least 8 nucleotides, a polypeptide having an amino acid sequence as shown in Fig. 4 or a functional variant thereof, and parts thereof having at least 6 amino acids, or an antibody according to Claim 9, is mixed with a pharmaceutically acceptable carrier.

15. Test for identifying functional interactors containing a nucleic acid coding for a polypeptide having an amino acid sequence as shown in Fig. 4 or a functional variant thereof, and parts thereof having at least 8 nucleotides, or a polypeptide having an amino acid sequence as shown in Fig. 4 or a functional variant thereof, and parts thereof having at least 6 amino acids, and, where appropriate, suitable additives or excipients.

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